To these contributions on Brazilian ornithology I may add, lastly, a reference to one which I published in 1899 ("As Aves do Estado do Rio Grande do Sul") in the 'Annuario do Estado do Rio do Sul' para anno de 1900 (Porto Alegre, 1899). There are here admitted 363 species as occurring in this State. In vol. iv. of the 'Revista do Musen Paulista' I have already been able to add six more species, and amongst them some of special interest, such as Dacnis cayana from Novo Hamburgo. It seems really quite doubtful whether many species exist in the State of St. Catharina which are not also represented in the northern part of the State of Rio Grande do Sul. The other additions are Macropsalis creagra, Asio accipitrinus, Falco fuscocærulescens from Novo Hamburgo, and Porphyriola martinica and Gisella iheringi from S. Lonrenco.

I have also lately received from Porto Alegre examples of Gallinago gigantea.

S. Paulo, 4th June, 1900.

IV.—Birds'-nesting Notes from the Transvaal. By Alwin C. HAAGNER.

On the 3rd September, 1899, while strolling along the shore of a dam in this district, I found the nest of a "Quicky" (Motacilla capensis L.). It was constructed of coarse grass and lined with feathers; it contained one abnormally coloured egg. This was of a salmon-grey colour, without spots or markings. Proceeding from the dam to a clump of mimosatrees (Acacia horrida), I found an unusual number of nests of the Pied Shrike (Lanius collaris). They all contained three eggs, and were, without exception, constructed of a plant with white silvery flowers, which was just then in bloom, and were lined with twine and feathers. I also found several nests of the common Sparrow of this district (Passer arcuatus). The eggs of these birds are subject to an enormous amount of variation. I have taken eggs almost black in colour, owing to the profusion and darkness of the blotches,

and others from the same nest almost white, the blotches being very light in colour and sparsely distributed. I also found in one of their nests an unknown egg, presumably that of a Cuckoo (Chrysococcyx cupreus), which is known locally as the "Diederic." The egg was smaller than that of the real owner of the nest, and of a dirty white, blotched in the form of a ring round the obtuse end with purplish and greyish brown. These Cuckoos are known to generally deposit their eggs in the nests of Passer arcuatus; which knowledge, and the fact of seeing and hearing the bird in the vicinity, made me think that it was the parent. These birds have a loud and very plaintive call, which may be described on paper thus-" dee-dee-dee, deederic" ! oft repeated. At the same time I found several nests of a Weaver-bird (Hyphantornis velatus), one of which contained three eggs: two of a green colour blotched with reddish and purplish brown, and one of a pinkish cream, blotched with the same colours as the green examples.

On the 15th of October I found a clutch of five eggs of a Kestrel (Tinnunculus rupicoloides) in a large deserted nest of the Secretary-bird (Serpentarius secretarius), which was used by the latter birds three years ago. The nest was built in a mimosa-tree, and was constructed of stems and twigs, some of the thickness of a man's finger. The diameter of the nest across the top must have been 3 feet. In the middle, in a hollow slightly lined with hair, wool, and rags, the five pretty eggs of the Kestrel were deposited. It was a sight to gladden the heart of any ornithologist ! The birds being extremely destructive to chickens (when they get the chance), I annexed the whole clutch. The eggs were rather variable in coloration, two being of a cream-coloured ground, thickly spotted and blotched with light and dark brown, and three being of a pinkish hue, both ground-colour and blotches. although the latter were, of course, of a much darker shade. On blowing the eggs, I found that those that were pinkish were fresh, whereas the others were addled; so I conclude that the pink examples would have attained the same shades as the brown had they been in the nest long enough. I

may mention that the parent bird flew off the nest when I came up, and I had a good view of her, so that I am sure of the identity.

On the 15th September I found two eggs of a Wader (*Totanus*?)* on the shore of our dam. They were about 15 yards from the water's edge, in an open spot, and were deposited in a hollow in the dry mud, which was heaped up a little all round, and contained a few bits of grass &c. The eggs were nearly embedded in the grass and small mudelots, and were so admirably concealed by virtue of their wonderful "protective resemblance," that I had to look again for a few seconds every time I took my eyes off the spot. They were of a dark cream-colour, thickly spotted, blotched, and streaked with various shades (light and dark) of brown and slaty brown. Axis 30 mm., diameter 23 mm.

I noticed that the parent bird approached the eggs from the land side, and not from the water : it would have been much more easily detected had it come from the latter direction, whereas its approach from the former was covered by the weeds. The parent birds also possess the advantage of a wonderfully protective coloration.

On the 20th October, 1899, I shot a splendid male specimen of *Nectarinia famosa* (Lay. & Sharpe, B. S. A. p. 306) in the Transvaal, a rare bird here—at least this is the opinion of writers on South-African birds. Dr. Holub, in his 'Beiträge zur Ornithologie Süd-Afrikas,' says nothing

* [Mr. Haagner sends us the following description of the Totanus, which we are not able to determine :—

"Head and hind-neck brownish grey; mantle and upper and lower back darker brown-grey, the feathers with a dark streak down the middle and edged with a lighter shade; coverts brownish grey, shot with light green (this is, however, only visible in certain lights); secondary and median coverts tipped with white, webs also bordered with white; the two outer primary-coverts reddish brown; throat, abdomen, and under tail-coverts white; breast and fore-neck grey; upper tail-coverts partly white, and a few reddish with black markings. Length $10\frac{1}{8}$ "; wing (measured in a straight line from base to tip and along the front edge, when stretched out) $8\frac{1}{4}$ "; tail $2\frac{1}{2}$ "; culmen $1\frac{3}{16}$ ". Irides carmine; bill black; legs dirty yellow."—EDD.]

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of having met with it north of the Cape Colony. This is the second example I have seen here during a residence of four years. The above-mentioned bird was in full and splendid dress.

On the 22nd of October my brother shot a female specimen of the Greenshank (*Totanus canescens*) still in winter plumage. They are scarce in these parts. The Bronze Cuckoo (*Chrysococcyx cupreus*) is common hereabouts (Pretoria district). On the 22nd October I shot a specimen in typical and glorious plumage. The bird was really gorgeous in its brilliant and fiery golden (and in some lights bronzy) green colour. Naked skin round eye light scarlet; irides light carmine; culmen and tip of lower mandible horn, remainder of lower mandible light bluish slate-colour; legs and toe-nails brownish black.

After rather a long absence the Hoopoes (Upupa africana) have once more made their appearance in our district, and in no small numbers. On October the 22nd I shot three specimens. On the 5th August, 1899, I obtained a specimen of the Bakbakkiri Busk-Shrike (Laniarius gutturatis) in interesting plumage. The whole chin, throat, breast, and underparts were of a blackish-yellow colour, without the black and yellow markings on the three former regions. Iris yellowish brown; base of lower mandible light horncolour, rest of bill black.

Modderfontein, 3rd April, 1900.

V.—Notes on the Nesting and other Habits of some South-African Birds. By R. H. Ivy *.

1. LAMPROCOLIUS MELANOGASTER (Sw.); Sharpe, Cat. B. xiii. p. 182.

This bird is not common here, and though I have seen several clutches of eggs, I myself have only once found the

* [Mr. Ivy, a resident at Grahamstown, in the Eastern Province of Cape Colony, has sent me the following notes on the habits of some of